



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/731,409	12/09/2003	Kinji Yokoya	AK-434XX	3924
207	7590	09/25/2006	EXAMINER	
WEINGARTEN, SCHURGIN, GAGNEBIN & LEBOVICI LLP TEN POST OFFICE SQUARE BOSTON, MA 02109				RODRIGUEZ, RUTH C
ART UNIT		PAPER NUMBER		
		3677		

DATE MAILED: 09/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/731,409	YOKOYA ET AL.
	Examiner Ruth C. Rodriguez	Art Unit 3677

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
 THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 26 May 2006.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1 and 2 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1 and 2 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 09 December 2003 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.  
 5) Notice of Informal Patent Application (PTO-152)  
 6) Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 and 2 are rejected under 35 U.S.C. 102(e) as being anticipated by Shiraishi et al. (US 2003/0230829 A1).

An injection device comprises a bearing sleeve (4). The bearing sleeve has an inner diameter, a flange, a rear portion and an inner split (Fig. 1-4). The inner diameter engages one end of a screw shaft (1). The flange is integrally formed on an outer periphery of the bearing sleeve (Figs. 1-4). The rear portion is disposed at the rear of the flange that is formed into a size fitted to a recess formed inside of an end of the motor shaft (Figs. 1-4). The inner spline is disposed at an inner periphery of the bearing sleeve (Figs. 1-4). The bearing sleeve is detachably mounted to the motor shaft by fitting the rear portion of the bearing sleeve into the recess and fastening the flange on an end face of the motor shaft with a bolt (6) such that the inner spline serves as the motor shaft spline (Figs. 1-4). The screw shaft spline is formed on an outer periphery on a shaft end portion of the screw shaft (Figs. 1-4).

The bearing sleeve has an annular groove at the inner periphery of an opening for the side of the screw shaft and a ring member (3) (Figs. 1-4).

***Response to Arguments***

3. Applicant's arguments filed 26 May 2006 have been fully considered but they are not persuasive.
4. In response to applicant's arguments, the recitation "wherein a rotating movement of a screw shaft for driving an injection screw driving body cause by an electric motor is converted into a linear movement of an injection screw driving body by screwing the screw shaft and a nut member positioned at the injection screw driving body with each other and resin is injected according to an advancing movement of the injection screw driving body and coupling between the screw shaft and the motor shaft of the electric motor is performed by engagement of a screw shaft spline and a motor shaft spline with each other" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). Additionally even if these limitations are considered, the Examiner fails to agree with the Applicant's comment that Shiraishi fails to disclose the limitations of the preamble since paragraphs 0005 to 0007

recites the limitations included in the preamble where a motor rotates the screw shaft and causes linear movement of an injection screw driving body.

5. In response to applicant's argument that claim 2 is allowable because Shiraishi fails to disclose that a ring member "for air-tightly sealing a clearance formed between the screw shaft and the bearing sleeve is fitted into the annular groove", a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Feroy (US 3,329,069), McArthur et al. (US 4,792,255), Takatsugi et al. (US 5,344,303), Hasegawa et al. (US 5,800,134), Floyd et al. (US 5,993,186), Koide et al. (US 6,499,989 B2), Onuma et al. (US 2003/0224085 A1), Shiraishi et al. (US 2003/0230829 A1), Markley (US 2004/0031475 A1), Hsu (US 2004/0071809 A1), Niglov (US 2004/0182185 A1) and European Patent Document EP 0 563 397 A1 are cited to show state of the art with respect to coupling structures having some of the features being claimed by the current application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ruth C. Rodriguez whose telephone number is (571) 272-7070. The examiner can normally be reached on M-F 07:15 - 15:45.

Art Unit: 3677

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on (571) 272-7075.

Submissions of your responses by facsimile transmission are encouraged. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-6640.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ruth C. Rodriguez  
Patent Examiner  
Art Unit 3677

rcr

September 12, 2006

Katherine Mitchell  
Primary Examiner

